UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,428	10/12/2000	Sujal M. Patel	REALNET.016A	7070

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EXAMINER
ODLAND, DAVID E

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary		Application No.	Applicant(s)	
		09/689,428	PATEL, SUJAL M.	☑
		Examiner	Art Unit	
		David Odland	2662	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on <u>*04/15/2004*</u>.

2a)☐ This action is **FINAL**.   2b)☑ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☑ Claim(s) *1-62* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☑ Claim(s) *28-56* is/are allowed.

6)☐ Claim(s) *1-23,25-27,57 and 59-62* is/are rejected.

7)☑ Claim(s) *24 and 58* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☑ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. *7* .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 12/08/2004

DETAILED ACTION

Response to Amendment

1.   The following is a response to the telephonic interview on 09/03/2004. Note, due

to the substance of the interview, the restriction requirement made on 03/11/2004 (Paper

#4) has been withdrawn and the Nonresponsive Notice dated 08/25/2004 (Paper #6) is

also withdrawn (see the accompanying Interview Summary (paper # 7) for the details

regarding the substance of the interview)

Claim Objections

2.   Claim 23 is objected to because of the following informalities:

Claim 23 recites "...of multicast session[, said client..." in line 6. The symbol '['

should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

4.   Claims 1-4,6-10 and 14-16, as best understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over the Admitted Prior Art described on pages 9 and 10

and figures 1 and 2 of the present application, hereafter referred to as 'APA', in view of

Provino et al. (USPN 6,269,085), hereafter referred to as Provino.

Referring to claim 1, APA discloses a communications system comprising a

server transmitting said data over said unicast session wherein said unicast session

transmits multicast sequencing data (a transmitting node sends data to a destination node

using unicast protocol (see pages 9 and 10 and figures 1 and 2 of the present application),

said server responsive to a request to stop transmitting said data over said unicast session

at a next multicast synchronize point (the transmitting node detects a request to stop

sending unicast data (see pages 9 and 10 and figures 1 and 2 of the present application).

The APA does not disclose transmitting data over a plurality of synchronized multicast

sessions and sequencing the transmission of said data in accordance with said multicast

sequencing data between said plurality of multicast sessions wherein said server uses one

of said plurality of multicast sessions.

However, Provino discloses a system wherein data is transmitted in multicast sessions

using a sequence number (see column 5 lines 29-67). It would have been obvious to one

skilled in the art at the time of the invention to implement this feature into the APA

because doing so would allow the APA to service many users of the system and keep the

data synchronized, thereby preventing data errors and loss.

Referring to claim 2, APA discloses the system discussed above. APA does not

disclose that said server transmits a second multicast sequencing point plurality of

multicast sessions includes a first multicast session and a second multicast session.

However, Provino discloses a system wherein multiple multicast sessions are used for

communications and sequencing of the sessions is continuously performed (see figure 2

and column 5)). It would have been obvious to one skilled in the art at the time of the

invention to implement this feature into APA because doing so would allow the APA to

service many users of the system and keep the data synchronized, thereby preventing data

errors and loss.

Referring to claim 3, APA discloses the system discussed above. Furthermore,

APA discloses that said data comprises a multimedia stream (see page 1).

Referring to claim 4, APA discloses the system discussed above. APA does not

disclose that said multicast sequencing data is transmitted before said data. However,

Provino discloses that sequence data is transmitted before the session (see figure 2 and

column 5)). It would have been obvious to one skilled in the art at the time of the

invention to implement this feature into APA because doing to would give the received

time to process the sequence data in order to properly receive the data.

Referring to claims 6-10, APA discloses the system discussed above. APA does

not disclose that said multicast sequencing data is transmitted at periodic intervals or the

predetermined time is substantially the same or different or the time corresponds to a

number of packets or time. However, Provino discloses these features (see column 5 and

figure 2). It would have been obvious to one skilled in the art at the time of the invention

to implement these features into APA because doing so would allow the system to stay

synchronized and organized.

Referring to claims 14 and 15, APA discloses the system discussed above.

Furthermore, APA discloses that said request to stop transmitting said data over said

unicast session is received over a unicast control channel (see pages 9 and 10 and figures

1 and 2 of the present specification).

Referring to claim 16, APA discloses the system discussed above. APA does not

disclose that said multicast sequencing data includes an ordering of said multicast

sessions and said predetermined period of time. However, Provino discloses this feature

(see column 5 and figure 2). It would have been obvious to one skilled in the art at the

time of the invention to implement this feature into APA because doing so would allow

the system to maintain proper synchronization.

5.   Claim 5, as best understood, is rejected under 35 U.S.C. 103(a) as being

unpatentable over APA and Provino as applied above, and further in view of Kar et al.

(USPN 5,761,439), hereafter referred to as Kar.

       Referring to claim 5, APA discloses the system discussed above. APA does not

disclose that said multicast sequencing data is transmitted over a unicast control channel.

However, Kar discloses a system wherein sequence data is transmitted over a control

channel (see claim 5)). It would have been obvious to one skilled in the art at the time of

the invention to implement this feature into APA because doing so would allow for

proper ordering of received packets. Furthermore, using the unicast channel instead of

the multicast channel would preserve the bandwidth utilization on the multicast channels

for actual data.

6.   Claims 17,18 and 20-22, as best understood, are rejected under 35 U.S.C. 103(a)

as being unpatentable over APA in view of Provino and further in view of Shur et al.

(USPN 6,259,701), hereafter referred to as Shur.

       Referring to claim 17, APA discloses the system discussed above. APA does not

disclose some of the limitation of claim 17. However, Shur discloses a communications

system comprising a client configured to receive said data over said unicast session (see

figure 1 and abstract), said client responsive to a signal to join said plurality of multicast sessions (see claim 1), said client identifying as a joinable multicast session one of said plurality of multicast sessions, said client joining said joinable multicast session, said client joining the remaining of said plurality of multicast sessions when said client starts receiving said data over said joinable multicast session (the client joins the multicast sessions (see claim 1 and figure 1)). Shur does not disclose that the multicast session is currently not transmitting said data and which will not be transmitting for at least a sufficiently long time or transmitting a request to stop transmitting said data over said unicast session at a next multicast synchronize point. It would have been obvious to one skilled in the art at the time of the invention to implement these features into Shur because joins such a session would allow the system to determine if there is enough time to adequately transfer data for the given session and stopping the transmission of unicast data will help preserve system resources since the unicast session is no longer needed because the multicast session has been set up.

Referring to claim 18, APA discloses the system discussed above. APA does not disclose that the predetermined period of time is longer than said sufficiently long time. However, It would have been obvious to one skilled in the art at the time of the invention to implement this feature in the APA because doing so would allow proper time fir the data to be transmitted, thereby making the system more reliable.

Referring to claims 20 and 21, APA discloses the system discussed above. Furthermore, Shur discloses that the signal is a user request and automatically issued by said client (see figure 1 and claim 1).

Referring to claim 22, APA discloses the system discussed above. APA does not

disclose that the client is responsive to a signal to unsubscribe from the unicast session

after receiving data from the multicast session. However, it would have been obvious to

one skilled in the art at the time of the invention to implement this feature into APA

because doing so would reduce bandwidth demand and reduce the unnecessary use of

system resources since the unicast session is no longer needed since a multicast session

has been established.

7.   Claims 23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Shur.

Referring to claim 23 Shur discloses a communications system comprising a

client configured to receive said data over said unicast session (see figure 1 and abstract),

said client responsive to a signal to join said plurality of multicast sessions (see claim 1),

said client identifying as a joinable multicast session one of said plurality of multicast

sessions, said client joining said joinable multicast session, said client joining the

remaining of said plurality of multicast sessions when said client starts receiving said

data over said joinable multicast session (the client joins the multicast sessions (see claim

1 and figure 1)). Shur does not disclose that the multicast session is currently not

transmitting said data and which will not be transmitting for at least a sufficiently long

time or transmitting a request to stop transmitting said data over said unicast session at a

next multicast synchronize point. However, It would have been obvious to one skilled in

the art at the time of the invention to implement these features into Shur because joins

such a session would allow the system to determine if there is enough time to adequately

transfer data for the given session and stopping the transmission of unicast data will help

preserve system resources since the unicast session is no longer needed because the

multicast session has been set up.

Referring to claims 25 and 26, Shur discloses the system discussed above.

Furthermore, Shur discloses that the signal is a user request and automatically issued by

said client (see figure 1 and claim 1).

Referring to claim 27, Shur discloses the system discussed above. Shur does not

disclose that the client is responsive to a signal to unsubscribe from the unicast session

after receiving data from the multicast session. However, it would have been obvious to

one skilled in the art at the time of the invention to implement this feature into Shur

because doing so would reduce bandwidth demand and reduce the unnecessary use of

system resources since the unicast session is no longer needed since a multicast session

has been established.

8.   Claims 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bhagavath et al. (USPN 6,567,929), hereafter referred to as Bhagavath in view of

Provino.

    Referring to claim 59, Bhagavath discloses a communications system comprising

a client configured to receive said data over said unicast session (a client receives unicast

data (see figure 2H)), said data comprising sequencing data (the packets include sequence

numbers (see figure 2H)), said client responsive to a signal to join said plurality of

multicast sessions, said client responsive to a signal to join said plurality of multicast

sessions, said client identifying as a joinable multicast session one of said plurality of

multicast sessions, and said client joining said identified joinable multicast session (a

client identifies and joins multicast sessions (see claim 1). Bhagavath does not disclose

that the sequence data is pertaining to the multicast session. However, Provino discloses

a system wherein sequence numbers regarding multicast sessions are used (see column 5

and figure 2)). It would have been obvious to one skilled in the art at the time of the

invention to implement this feature into Bhagavath because doing so would allow the

system to keep track of the multicast packets, thus making the system more reliable.

Referring to claim 60, Bhagavath discloses the system discussed above.

Furthermore, Bhagavath discloses that said signal to join is a user request (see claim 1)).

Referring to claim 61, Bhagavath discloses the system discussed above.

Furthermore, Bhagavath discloses that said signal to join to automatically issued by said

client (the signal moves through a computer network thus it is 'automatically' issued.

9.   Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Bhagavath in view of Provino and further in view of St. Maurice et al. (USPN

6,418,473), hereafter referred to as Maurice.

Referring to claim 62, Bhagavath discloses the system discussed above.

Bhagavath does not disclose that the client is responsive to a signal to unsubscribe from

the unicast session after receiving data from the multicast session. However, Maurice

discloses a system wherein clients can unsubscribe to unicast sessions (see column 4). It

would have been obvious to one skilled in the art at the time of the invention to

implement this feature into Bhagavath because doing so would reduce bandwidth demand

and reduce the unnecessary use of system resources since the unicast session is no longer

needed since a multicast session has been established.

Allowable Subject Matter

10.   Claims 28-56 are allowed.

11.   Claims 24 and 58 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form *including all of the limitations of*

the base claim and any intervening claims.

Conclusion

12.   The following prior art, which is made of record and not relied upon, is

considered pertinent to applicant's disclosure:

      a.   U.S. Patent Number 5,519,704 to Farinacci et al.

      b.   U.S. Patent Number 6,181,697 to Nurenberg et al.

      c.   U.S. Patent Number 6,515,991 to Mckeown.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David Odland whose telephone number is 703-305-3231.

The examiner can normally be reached on Monday - Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax phone number for

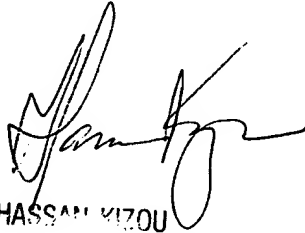the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

deo

December 8, 2004

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